



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/771,225

01/26/2001

Eric K. Wilson

23600.01401

6931

58076

7590

12/13/2005

REED SMITH, LLP
TWO EMBARCADERO CENTER
SUITE 2000
SAN FRANCISCO, CA 94111

EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **09/771,225**

Applicant(s)

WILSON, ERIC K.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments, filed September 19, 2005, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, the indicated allowability of claim 21 is withdrawn and a new ground of rejection is made in view of Strecker.

Drawings

Replacement drawings were received on September 19, 2005. These drawings are acceptable.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-15, 18, 20-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable Quigley et al. (US 6,650,624).

1. Regarding claims 1 and 21, Quigley discloses a method for distributed upstream QoS processing (col. 36, lines 39-48) in a broadband access system (fig. 1). The method comprises measuring a quality of received packets (col. 32, line 64 through col. 33, line 7; col. 37, lines 30-37) sent by a modem in an upstream channel at a modem termination system (fig. 27, item 10), determining whether the measured quality is within a predetermined range (col. 36, lines 39-48; col. 38, lines 12-17), sending an out-of-range quality report or exception for the received packets (col. 40, lines 24-32; fig. 29, packet/FEC status, SIR, channel power) to a network management server (fig. 29, item 340), and modifying operating parameters for the upstream channel in

Art Unit: 2666

accordance with the measured quality if an out-of-range quality is reported (col. 36, lines 57-60; col. 38, lines 2-7 and 12-17).

2. However, Quigley does not disclose sending a report or exception at a higher priority based on a measured value being above or below a threshold. Strecker discloses sending an command for processing at a higher priority (col. 11, lines 15-25; col. 15, lines 46-62).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a higher priority report or exception in the invention of Quigley in order to give importance to the performance of the report or exception (Strecker, col. 14, lines 44-46).

3. Regarding claims 2-4, in Quigley the step of measuring comprises measuring a SNR (col. 38, lines 662-65), a bit-error-rate (col. 39, lines 5-8), or a FEC quality measure (col. 39, lines 9-11).

4. Regarding claims 5 and 11, in Quigley an average value is obtained for a series of packets (col. 38, lines 33-42; col. 40, lines 46-48) to determine if a quality is above or below a threshold. The average is associated with a modem ID (col. 37, lines 37-40; col. 52, lines 55-58).

5. Regarding claim 6, in Quigley the network management server (fig. 29, item 340) reassigns the modem to a different downstream channel (col. 40, lines 56-65) in the same operating frequency sector (i.e. frequency range -- col. 37, lines 34-37).

6. Regarding claims 7-10, 12-15, 18 and 20, in Quigley the network management server reassigns the modem to a lower/higher order modulation type (col. 45, lines 38-42), a lower/faster symbol rate (col. 40, lines 38-42), or a more/less robust FEC scheme (col. 39, lines 19-22). A combination of adjustments is made (col. 39, lines 22-25).

Art Unit: 2666

7. Regarding claims 23-24, in Quigley the method is performed in a broadband wireless system (figs. 78-79; col. 70, lines 61-65).

Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley in view of Strecker, as applied to claim 11 above, and in further view of Houck et al. (US 5,920,571).

8. Regarding claims 16 and 19, Quigley discloses a method for reassigning a modem to a channel (fig. 29). However, Quigley in view of Strecker does not disclose reassigning a modem to a channel that has similar parameters but less traffic. Houck discloses reassigning a modem (fig. 1, item 185; col. 3, line 67 through col. 4, line 5; col. 4, lines 21-22) to a channel having similar parameters, but having less traffic (col. 2, lines 31-36; col. 3, lines 11-19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to reassign a modem to a lesser used channel in the invention of Quigley in view of Strecker in order to reduce interference or contention in the system (Houck, col. 1, lines 62-65).

Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quigley et al. (US 6,650,624) in view of Strecker et al. (US 4,777,595) and Perreault et al. (US 6,169,728).

9. Regarding claim 22, Quigley in view of Strecker discloses a method for reassigning a modem to an upstream channel (fig. 29) as noted in the rejection of claim 1 above. However, Quigley in view of Strecker does not disclose reassigning a modem to a downstream channel. Perreault discloses reassigning downstream channels in a cable modem system (fig. 5, steps 315 and 320). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have reassign a downstream channel in the invention of Quigley in view

Art Unit: 2666

of Strecker in order to provide an improved downstream channel for transmission (Perreault, col. 9, liens 39-47).

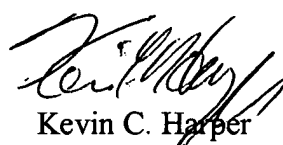
10. Regarding claim 25, in Quigley the method is performed in a broadband wireless system (figs. 78-79; col. 70, lines 61-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kevin C. Harper

December 8, 2005